

Attachment A - Claims Listing

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- 5 1 (currently amended): A method for detecting a connection polarity of a network transmission line, one terminal of the network transmission line connected to a connection port, the network transmission line comprising a first transmission line and a second transmission line; the method comprising:
- 10 the connection port counting a first number of signals transmitted via the first transmission line during a predetermined interval;
- the connection port counting a second number of signals transmitted via the second transmission line during said predetermined interval;
- the connection port determining that the connection polarity of the network transmission line is correct when a difference between the first number and the
- 15 second number is less than a first threshold value; and
- the connection port determining that the connection polarity of the network transmission line is inverted when a difference between the first number and the second number is greater than a second threshold value.
- 20 2 (original): The method of claim 1 further comprising switching the first transmission line and the second transmission line connected to the connection port when the connection polarity of the network transmission line is inverted.
- 3 (original): The method of claim 1 wherein the network transmission line is used for
- 25 transmitting a 100Base-T signal.
- 4 (original): The method of claim 3 wherein the 100Base-T signal is an MLT-3 coded signal.
- 30 5 (original): The method of claim 1 further comprising comparing voltage levels of signals transmitted via the network transmission line with a predetermined level

for generating the first number and the second number.

6 (original): The method of claim 1 further comprising transforming each signal
transmitted via the network transmission line into a pulse signal for counting the
5 first number and the second number.

7 (original): The method of claim 6 wherein said transforming step comprises using a
Schmitt trigger for transforming each signal transmitted via the network
transmission line into the pulse signal.

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8-12 (cancelled).

13 (currently amended): A detection circuit for detecting a connection polarity of a
network transmission line of a receiver terminal having a receiving terminal and
15 a transmitting terminal, the detection circuit comprising:
a first counter for counting a first number of signals received by the receiving
terminal of the receiver terminal;
a second counter for counting a second number of signals received by the
transmitting terminal of the receiver terminal;
20 a multiplexer for coupling the network transmission line with the receiving
terminal and the transmitting terminal; and
a controller for determining whether the connection polarity of the network
transmission line is correct and signaling the multiplexer correspondingly to
control the connection polarity for the network transmission line, wherein the
25 controller signals the multiplexer for maintaining the connection polarity of
the network transmission line when a difference between the first number
and the second number is less than a threshold value.

14 (cancelled).

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15 (original): The detection circuit of claim 13 wherein the controller signals the
multiplexer for switching the connection polarity of the network transmission

line when a difference between the first number and the second number is greater than a threshold value.

16 (original): The detection circuit of claim 13 wherein each signal transmitted via the
5 network transmission line is an MLT-3 coded signal.

17 (original): The detection circuit of claim 13 further comprising a Schmitt trigger
for transforming each signal transmitted via the network transmission line into a
pulse signal for counting the number for said each signal.

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